TJPA
TRANSBAY JOINT POWERS AUTHORITY
Maria Ayerdi • Executive Director

September 27, 2007

Mehdi Morshed, Executive Director
California High-Speed Rail Authority, EIR/EIS Comments
925 L Street, Suite 1425
Sacramento, CA 95814

Subject: Draft Bay Area to Central Valley High-Speed Train
Program Environmental Impact Report/Environmental Impact Statement

Dear Mr. Morshed:

The Transbay Joint Powers Authority (TJPA) wishes to congratulate the California High-Speed Rail Authority on the publication of the Draft Bay Area to Central Valley High-Speed Train (HST) Program Environmental Impact Report/ Environmental Impact Statement (EIR/EIS). The Draft EIS/EIR represents a significant milestone in your efforts to bring high speed rail service to California. L012-1

We have reviewed the Draft EIR/EIS and offer comments that are specific to the evaluation and selection of the high-speed rail terminus in San Francisco. In addition, the attached table contains technical comments related to specific sections in the EIR/EIS that reference the San Francisco terminus of the proposed system.

The TJPA fully supports San Francisco and the Transbay Transit Center building as the primary Bay Area destination for California high-speed rail. The new Transit Center is ready to play a major role in the region as a City center destination with full multimodal connectivity serving the greater San Francisco Bay Area as a regional transit hub. The scope and design of the Transit Center is being developed in accordance with MTC Resolution 3434, focused on transit-oriented development and is an integral part of the Regional Rail Planning for future regional rail service for Northern California. L012-2

The Transit Center operating as the California high-speed rail stop for San Francisco has advantages when compared with other potential locations. The foremost of these are:

- The Transit Center is a true multimodal transportation hub designed to provide access to both local and regional transportation networks consisting of buses, rail transit, commuter rail and future high-speed rail.
- The Transbay Transit Center Program is being developed in general conformance to the policies and principles for transit-oriented development.

- The Transbay Transit Center Program is largely funded, integrating public-private investment and allowing the development and construction of the Transit Center to proceed. The project has gained national recognition as a true state-of-the-art transportation gateway for Northern California and the first in the western United States.
- The Transbay Transit Center Program, consisting of the Transit Center and downtown rail extension, is an environmentally cleared project.

The development of the Transbay Transit Center Program and its inclusion of high-speed rail is supported by the voting public of California and San Francisco through the enactment of the following legislation: L012-2 Cont.

- Proposition H (Nov 99), overwhelmingly adopted by San Francisco voters, makes it City law to extend Caltrain to downtown San Francisco to a new or rebuilt regional transit station on the site of the existing Transbay Terminal and mandates that the new transit station serve high-speed rail.
- Senate Bill 1856 (Sep 02) clearly states that high-speed rail will connect Los Angeles Union Station to the San Francisco Transbay Terminal.
- Senate Bill 916 (MTC Regional Measure 2) (Oct 03) clearly states that Caltrain be extended to Transbay, and that accommodation of a future high-speed passenger rail line to Transbay and eventual rail connection to the East Bay be provided.

The Transit Center is undoubtedly the preferred San Francisco destination for high-speed rail, embodied in the actions of the legislature and votes of San Francisco and Bay Area residents.

Notwithstanding the enacted legislation, the Transbay location meets or exceeds key high-speed rail station location objectives and evaluation criteria, presented in Table 2.5-2, Page 2-28 of the Draft EIR/EIS, as demonstrated in the following sections:

Maximize Ridership/Revenue Potential

- Table S.5-1 of the Draft EIR/EIS indicates an express travel time from Los Angeles to San Francisco of 2:36 hours. The travel time to downtown San Francisco is optimized with a Transit Center location as no additional mode transfer is necessary. With an alternative terminal location, additional travel time must be added to the 2:36 hours to account for a modal transfer to reach the downtown location. As the Draft EIR/EIS recognizes on Page 1-13, limited intermodal connections exist and where they do exist, they are cumbersome, involving long waits. The time associated with the intermodal connection must be included in the estimated downtown travel time for alternative station locations. Additional travel time could be in the region of 15-20 minutes. L012-3

- The Draft EIR/EIS Section 7.3.1, Page 7-128, indicates that a Transit Center location will generate an additional 2.5 million passengers per year and $19 million per year in revenue compared with a Fourth and Townsend street terminus. This finding is consistent with the Charles River Associates 1996 study performed for the Intercity High-Speed Rail Commission, the predecessor to the California High-Speed Rail Authority. L012-4

Maximize Connectivity and Accessibility

- As evidenced by Draft EIR/EIS Table 3.1-4, Page 3.1-13, the Transit Center provides maximum connectivity with both City and regional transit service. As indicated, the Transit Center offers connectivity with providers Muni, AC Transit, SamTrans, and Golden Gate Transit. However, in addition to those providers listed, the Transit Center will also provide direct connectivity with Greyhound, WestCAT, Caltrain, and BART by means of a direct underground pedestrian connection.

- MTC Resolution 3434 (Dec 01) gives Transbay MTC's highest rating for system connectivity in terms of number of connecting operators, and frequency of connections and system access, in terms of the number of modal access options.

Minimize Operating and Capital Costs

The cost of the Transit Center is fully funded, and it will be a state-of-the-art facility. The Transit Center provides a rail destination which will take advantage of cost saving through the use of green design concepts. The multimodal station by default results in shared use, thus reducing costs for single operators, as costs for common areas are not borne by any one individual operator. Furthermore, no single operator is burdened with the capital costs for the facility. This is similar to business models used in the airline industry where no one airline is burdened with the cost for the entire airport; airlines instead are provided access through passenger service charges and other such financial arrangements.

L012-4 Cont.

Maximize Compatibility with Existing & Planned Development

MTC Resolution 3434 (Dec 01) gives the Transit Center MTC's highest rating for supportive land use for both residences and employment in the Transbay vicinity, consistent with the transit-oriented development goals of high-speed rail. The Neighborhood Redevelopment Plan, an integral component of the Transbay Program, will transform a currently underutilized section of downtown San Francisco, consisting of parking lots and irregular parcels of State-owned land previously occupied by structures that were demolished after the Loma Prieta earthquake, into a thriving transit-oriented neighborhood. Adopted by the City of San Francisco in June 2005, the Neighborhood Redevelopment Plan will facilitate the development of nearly 3,400 new homes (35% of which will be affordable), 1.2 million square feet of new office, hotel, and commercial space, and 60,000 square feet of retail, not including retail in the Transit Center. The buildings will include townhouses, low- and mid-rise buildings, and high-rise towers, all of which will be within easy walking distance of the high-speed rail terminal within the Transit Center.

Maximize Avoidance of Areas with Geologic and Soils Constraints

While the soil conditions at the Transit Center site are variable, the foundations for the structure bear upon an extremely competent layer of Colma Sand, which is used extensively as a foundation layer for structures in San Francisco. Conversely, the soils at the Fourth and King Street Station site comprise fill material overlying Bay Mud, with increased susceptibility to liquefaction during a seismic event and differential settlements, respectively.

Furthermore, as identified within the CHSRA Draft EIR/EIS (Table 3.11-1), no areas of potential hazardous materials have been identified for the Transbay Transit Center building location.

Based upon these high-speed rail criteria, we maintain that the most advantageous destination for high-speed rail in San Francisco is downtown at the new Transit Center. This opinion is

shared by the voting public, as recognized in the Draft EIR/EIS Section 10.3, Page 10-6. Transbay is the San Francisco destination that the public wants.

The TJPA recognizes the importance of the high-speed train system to the future transportation and economic well-being of the State of California, and continues to support the implementation of the California high-speed train system.

L012-4
Cont.

Should you have any questions related to the TJPA's comments, please contact Robert Beck, TJPA Senior Program Manager, at 415.597.4620.

Very truly yours,

Maria Ayerdi
Executive Director

cc: Senator Don Perata
Assemblywoman Fiona Ma
Honorable Quentin Kopp

TJPA's Technical Comments on the Draft Bay Area to Central Valley HST EIR/EIS

Comment No.	EIR/EIS Reference	TJPA Comment	
1	Section 1.4.2 Page S-11	It is unclear how costs of additional travel time have been addressed. If the figures reflect only capital investment costs, an attempt should be made to evaluate the costs versus benefits of alternative alignments (for example the costs of additional travel time associated with inconveniently located stations or the potential for employment growth).	L012-5
2	Section 1.4.3 Page S-12	With reference to footnote 5, a route from San Francisco to Sacramento via the Altamont Pass with a Transbay Tube at Oakland would appear to be the most direct route.	L012-6
3	Chapter 2 general	The EIR/EIS needs to explain the relationship between the HST project and the Transit Center more explicitly, describing which TJPA facilities require expansion/alteration to efficiently operate and co-locate HST and Caltrain at the Transit Center, and which agency is responsible for these critical capital improvements.	L012-7
4	Section 2.3.2 Page 2-9	It is stated that technology exists to allow shared track operations, which would require four tracks at stations and three to four mainline tracks. It should be noted that the Transit Center Project is planning a configuration which would allow shared track operations consistent with this technology.	L012-8
5	Section 2.3.3 Page 2-16	Caltrain electrification will support operation to the Transit Center. *Transbay Terminal* is the term used to reference the existing facility.	L012-9
6	Table 2.5-1 Pages 2-24 and 2-25	It appears that the Transit Center is exclusively linked to a Transbay Crossing. The Transit Center should be the San Francisco terminus under all San Francisco network alternatives.	L012-10
7	Table 2.5-3 Page 2-30	Reference is made to a station at 4th and Townsend streets. Reference is made elsewhere to a station at 4th and King streets, which is understood to be the existing Caltrain terminus. A definition of the 4th and Townsend station location should be provided. It should also be noted that as part of the planning for the Transbay Program, an underground station is planned at the intersection of 4th and Townsend streets. As agreed by Caltrain and TJPA through coordination on the development of the Transbay Program, this station is designated the *4th and Townsend Street Station*, and the existing Caltrain surface station is designated as the *4th and King Street Station*. We would recommend that the EIR/EIS adopt the same nomenclature for consistency.	L012-11

8	Table 2.5-3 Page 2-34 Map TB-2	The EIR/EIS does not confirm whether a 4th and King transbay tube alignment can be established from that location without significant environmental and local disturbance to existing businesses/residences and major drainage structures. In addition, the Federal Transit Administration Record of Decision for the Transbay Program issued on February 8, 2005, has preserved the Townsend Street right-of-way for the Caltrain Downtown Extension (DTX). Constructing a high-speed rail East Bay crossing tunnel along this corridor may create a conflict for the DTX alignment.	L012-12
9	Section 3.1	At several intersections surrounding the Transbay Terminal, pedestrian circulation will be affected, according to the information in the Final EIS/EIR for the Transbay Transit Center Program. This information should be included for the Transit Center and 4th and King Street Station.	L012-13
10	Table 3.1-3 Page 3.1-9	We have a number of concerns related to results of the traffic study presented in Table 3.1-3, and subsequently discussed on Pages 3.1-14 and 3.1-15 as follows:	L012-14
		The Final EIS/EIR for the Transbay Transit Center Program identifies study area intersections around the Transit Center that are and will continue to operate at LOS F with or without high-speed rail, which is different from the information presented in Table 3.1-3.	L012-15
		The discussion of the tabulated volume to capacity (v/c) ratios is for a "cordon around this station location option" for the Transit Center and for the 4th and King street sites. The EIR/EIS does not indicate which roadways are included in the "cordon," nor does it indicate how the v/c ratio was calculated, i.e., for the AM peak hour or PM peak hour, or for a peak period or on a daily basis. San Francisco Planning Department MEA analyzes PM peak hour conditions, and depending on the intensity of the proposed use, the AM peak hour conditions. Also, a v/c ratio analysis on a cordon basis is not appropriate for city conditions that are oversaturated during peak periods. During oversaturated conditions, the volume that is counted is artificially low because vehicles can't get through and are in queue instead. The capacity has to then be adjusted to reflect these conditions. This was probably not done correctly. In any event, the traffic analysis should be for intersections, rather than for a cordon.	L012-16

		Table 3.1-3 indicates the streets around the 4th and King Street Station currently operate and will continue to operate at LOS A. We believe this does not accurately reflect peak period conditions at 3rd/King and 4th/King. The use of the cordon results in a significant difference in the results for the existing v/c ratios for the Transit Center and for the 4th and King street sites, which is then carried through the 2030 analysis. Intersection operating conditions in the vicinity of the 4th and King street site are much more congested than the v/c ratio reflects, and by 2030, many of the intersections are projected to operate at LOS F. The Final Transportation Study report for a project at 178 Townsend Street shows LOS E or F conditions at 2nd/King, 3rd/King, 3rd/Brannan and 2nd/Bryant. Preliminary (subject to review by the FHWA) results from the Central Subway Project analysis indicate LOS F conditions at 3rd/King, 4th/King, and 6th/Brannan. (Only five intersections were analyzed for that study.) Other reports also indicate significant impacts that cannot be mitigated at nearby intersections.	L012-16 Cont.
11	Table 3.1-3 Page 3.1-9	Table 3.1-3 indicates that 2,000-3,000 parking spaces will be required for high-speed train (HST) service for the Pacheco alignment and 1,500 and 2,100 for Altamont for either a Transit Center or 4th/King terminal. These figures also need to be justified. The parking demand for the two station location options does not seem to correctly reflect the difference in transit accessibility between them. We would not expect the required access by auto to be the same for the two sites. This argument is reflected in the impact discussion for the Transit Center on page 3.1-27 that presents a qualitative statement of Transbay's transit accessibility: "Being in an urban hub, much of the HST station traffic would use transit services to access the station." The traffic projections/modeling do not appear to have accounted for the intermodal connectivity at Transbay as a means of reducing traffic congestion.	L012-17
12	Table 3.1-4 Page 3.1-13	The connecting transit service at the Transit Center will also include WestCAT, Greyhound, Caltrain and BART. As part of the proposed Downtown Extension of Caltrain under the Transit Center Program, an underground station will be constructed beneath Townsend Street at 4th Street adjacent to the existing Caltrain Yard. This station is being referred to as the *4th and Townsend Street Station* to distinguish it from the existing station, which is referred to as the *4th and King Street Station*.	L012-18
13	Table 3.1-4 Page 3.1-13	The table lists 4th/Townsend as a potential HST location, whereas previously and subsequently 4th and King has been identified as a potential terminal location. A consistent term should be used for the Transbay alternative. It is recommended to use 4th and King.	L012-19

14	Section 3.1.1 Page 3.1-14	The current Caltrain terminus should be identified as the 4th and King Street Station, not 4th and Townsend. As part of the proposed Downtown Extension of Caltrain under the Transbay Transit Center Program, an underground station will be constructed beneath Townsend Street at 4th Street adjacent to the existing Caltrain Yard. This station is being referred to as the *4th and Townsend Steet Station* to distinguish it from the existing station which is referred to as the *4th and King Street Station.*	L012-20
15	Section 3.1.1 Page 3.1-14	The Transit Center will extend to Beale Street, not Fremont Street as indicated.	L012-21
16	Section 3.1.1 Page 3.1-14	It should be noted that the Transit Center is a future facility, which does not yet exist. The document should use the term *Transit Center* when referring to the future facility, and *Transbay Terminal* when referring to the existing facility. A global check should be performed on the document. (See also page 3.2-26, Table 3.7.3, Page 3.16-15 & elsewhere.)	L012-22
17	Section 3.1.1 Page 3.1-15	It is intended that Transbay will become the principal terminus for Caltrain service.	L012-23
18	Section 3.1.1 Page 3.1-15	The distance between Transbay and 4th and King streets is 1.3 miles, not less than one mile as stated. The distance is also stated as 1.2 miles on page 3.2-32. This too should be corrected to read 1.3 miles.	L012-24
19	Section 3.1.1 Page 3.1-18	The discussion on Bay crossings should include reference to the fact that Senate Bill 916 (MTC Regional Measure 2) (Oct 03) states that accommodation for an eventual rail connection to the East Bay be provided within the Transbay design.	L012-25
20	Section 3.1.3 Page 3.1-27	The EIR/EIS states that the Metropolitan Transportation Commission's Transit Center Improvement Plan details a new 600,000-square-foot bus and rail transit facility as well as new transit-oriented development surrounding the terminal. The footprint of the center has been expanded. The Transit Center Scope Definition Report (March 2007) states the square footage of the building footprint is approximately 1 million square feet. Page 2-14 of the Final EIS/EIR for the Transbay Transit Center Program indicates that the Transit Center will have a total floor area of just over 1 million square feet.	L012-26
21	Section 3.1.3 Page 3.1-27	The current Transit Center configuration provides for 30 bus bays on a single elevated bus level and 10 bus bays on a below-grade mezzanine level.	L012-27

22	Section 3.1.3 Page 3.1-27	It does not seem that parking supply and cost was correctly reflected in the calculation of ridership demand; parking supply was assumed unconstrained, as stated on page 3.1-27: "It is assumed that the private sector would respond to the demand at market rates and provide sufficient parking at or close to this location to accommodate the demand at this location." This is not the City's policy or experience. The parking supply in the area around the Transbay Terminal is decreasing. We do not believe it is realistic to assume that "HST riders have adequate parking if they pay $25 per day, the current market rate for the area." Neither do we believe that the level of parking indicated is warranted.	L012-28
23	Section 3.1.5 Page 3.1-38	It is stated that an increase in traffic and congestion is anticipated at HST station locations. However, on Page 3.1-27 it is stated, "Being in an urban hub, much of the HST station traffic would use transit services to access the station." The basis for this statement regarding increased traffic and congestion is not clear.	L012-29
24	Section 3.1.5 Page 3.1-38	The basis for the statement that the HST station options have capacity deficiencies to meet transit demand is not provided. The capacity of the Transit Center has been based upon the future operating requirements of both bus and rail transit providers.	L012-30
25	Table 3.2-7 Page 3.2-12	The table indicates a travel time of 3 hours and 24 minutes from downtown Los Angeles to downtown San Francisco. The travel time will be increased with a 4th and Townsend terminus, which will require a modal transfer to reach the downtown location.	L012-31
26	Table 3.2-7 Page 3.2-12	No travel time for San Francisco to Sacramento is indicated.	L012-32
27	Section 3.2.3 Page 3.2-17	Further statistics on HST timeliness should be available from South Korea and Taiwan.	L012-33
28	Section 3.2.3 Page 3.2-21	HST will also share track with commuter and freight service in the Los Angeles area.	L012-34
29	Section 3.2.3 Page 3.2-30	It is stated that parking charges of $25 contribute significantly to the cost of a trip from San Francisco. Based upon previous comments related to the accessibility of Transbay by other transit systems, there seems to be little justification for this statement.	L012-35
30	Section 3.2.3 Page 3.2-32	It is recognized in the text that the Transit Center offers far superior connectivity than 4th and King, and that travel times to downtown could be expected to be superior. It would reasonably be expected that an analysis of the travel time from 4th and King to downtown would be performed to quantify the difference in performance of the two options.	L012-36

31	Section 3.3.6 Page 3.3-20	A more detailed traffic analysis at Transit Center and 4th/King stations would provide a more accurate determination of localized air quality impacts at these locations than is currently provided.	L012-37
32	Table 3.4-4 Page 3.4-14	The table indicates a vibration impact rating of *medium* for the Transit Center. This contradicts the text on page 3.4-13, which states that vibration impacts are low. Shared use of the DTX tunnel and San Francisco terminal stations should not produce noise and vibration impacts for HST operation. The basis for indicating *medium potential* of effect at these locations is not clear.	L012-38
33	Section 3.7.2 Page 3.7-14	It should be noted that an East Bay crossing from the Transit Center would be located on Main Street to be consistent with current studies for the Transbay Program.	L012-39
34	Table 3.7-3 Page 3.7-20	Table 3.7-3 should reflect the modifications to the planning code and redevelopment plan documents that are currently in process for the South of Market area to more accurately determine if land use, population, and housing impacts would occur with the implementation of the HST project.	L012-40
35	Section 3.7.3 Page 3.7-30	It is stated that an underground HST station location option at 4th and King streets would be highly compatible with the existing Caltrain station and yard under which it would be located. The report should demonstrate the feasibility and practicality of constructing an underground facility at this location including HST station infrastructure—waiting rooms, servicing, etc.—capable of supporting 1,400 foot HST consists, while maintaining uninterrupted Caltrain service at the surface station.	L012-41
36	Table 3.9.1 Page 3.9-11	The table indicates no visual impacts for the Bay crossing alternatives. It should be recognized that ventilation structures will be required on either shoreline for air intake and exhaust for normal and emergency conditions. The impacts of these structures should be examined in the project-level EIR/EIS.	L012-42
37	Section 3.10.6 Page 3.10-11	The alignment profile shown in Appendix 2D, Page 2-D-2 shows HST below grade as it approaches the 4th and King station. At this location an existing sewer is referenced—the San Francisco Public Utilities Commission Division Street Outfall. The Transbay Program has sought to avoid any conflict with this major sewer location, which comprises a four compartment box sewer at the interface with the HST alignment. The potential conflict with this sewer, feasibility of proposed mitigation, and associated construction cost impacts should be recognized within the EIR/EIS.	L012-43

38	Table 3.11-1 Page 3.11-10	Although the table indicates no hazardous material impacts would occur in the South of Market area due to HST implementation, a more thorough analysis of the transbay crossing may reveal potential hazardous materials impacts.	L012-44
39	Table 3.12-1 Page 3.12-12	Although no recorded archaeological and architectural resources are indicated in the table for the Transit Center and 4th/King stations, the sensitivity rating for both is *high*. This apparent inconsistency should be clarified. The information presented should also correlate with that contained in the Final EIS/EIR for the Transbay Transit Center Program.	L012-45
40	Table 3.14-1 Page 3.14-14	The table indicates that there are groundwater impacts at the Transit Center and 4th/King stations. The impacts and their relationship to HST operation in shared use facilities should be described.	L012-46
41	Table 3.14-2 Page 3.14-18	The table subheading Lakes should be changed to something more relevant to indicate the hydrologic effects of the transbay tunnel.	L012-47
42	Table 3.15-1 Page 3.15-26	Under the heading Wildlife Corridor Movement, it appears that there is an impact identified for the San Francisco side of the transbay tunnel. This is also stated on Page 3.15-16 and indicated on Figure 3.15-3. However, the wildlife species is not specifically identified.	L012-48
43	Section 3.15.3 Page 3.15-35	The text describes impacts on Bay Waters and one special-status species in the area around the Transit Center and 4th and King Street Station. However, it is not clear whether this relates to the Transbay Crossing alignment only or the proposed station locations. The plant species is not identified. For the Transbay location, the impacts should be compared with those identified within the Final EIS/EIR for the Transbay Transit Center Program.	L012-49
44	Table 4.2-1 Page 4.2	The costs for Transit Center are stated as being $786 million, and the Caltrain Downtown Extension, $398 million. The breakdown and basis for these costs should be should be coordinated with current estimates for the Transbay Program.	L012-50
45	Chapter 5	The beneficial as well as adverse economic effects of the HST project on San Francisco need to be described using the most recent planning documents for the South of Market area. The analysis lacks a comprehensive perspective of project-related direct and indirect economic impacts on the City economy and tax base, which should be included in the project-level document.	L012-51

46	Section 5.2.2 Page 5-4	It is stated that quantitative modeling was performed for the San Francisco and San Jose termini because prior studies performed by California High-Speed Rail Authority suggested that these termini are likely to produce the highest system ridership, and hence the highest potential for induced growth and secondary impacts. We believe strongly that this was an accurate prediction; this statement is not supported by the ridership figures presented in Table S-5.1. Based upon the outcomes of the prior studies, an explanation of why the anticipated results were not realized should be given. If the results suggest that the qualitative assessment of the other alignment/station options is overly optimistic, this should be stated.	L012-52
47	Table 7.2-1	All network alternatives presented use Transbay as the basis of the comparison. It should be noted within the travel times that with a 4th and King terminus, the travel time indicated to downtown San Francisco would reasonably be expected to increase by approximately 15-20 minutes.	L012-53
48	Section 7.3.1 Page 7-127	The TJPA agrees with the statements made related to key aspects of the analysis for the Transit Center. The Transit Center provides greater connectivity to San Francisco and the greater Bay Area; is very compatible with existing and planned development; offers superior travel times to downtown; will be a truly multimodal hub; affords the opportunity for many potential HST passengers to walk to the station; and has low environmental impacts. TJPA believes that a station at the Transit Center best meets the vision of a multimodal hub surrounded by transit-oriented development, which aligns with California's new policy initiative for reducing greenhouse gases based on ridership potential.	L012-54
49	Section 7.3.1 Page 7-127	It should be recognized that Muni bus service will be located directly at the Transit Center, in addition to the light rail service one block away. It should also be recognized that a direct underground pedestrian connection will be provided between the Transit Center and BART/Muni service on Market Street.	L012-55
50	Section 7.3.1 Page 7-127	It should be noted that extensive analysis of the tunneling option has proven its feasibility.	L012-56
51	Section 7.3.1 Page 7-128	It is stated that the travel time from a 4th and King station would be 2.5 minutes shorter than to the Transit Center. This statement is misleading, in that the Transit Center represents a downtown location. The additional travel time to journey downtown should be added to the travel time for the 4th and King station for a true comparison.	L012-57

52	Section 7.3.1 Page 7-128	We believe there are considerable construction logistics and rail operations impacts which must be mitigated at the 4th and King site to accommodate the construction of an underground facility. These should be addressed within the report. The cost and schedule impacts of the staging required to maintain Caltrain service during construction of the permanent facility must be reflected in the project cost estimate.	L012-58
53	Figure 7.3-9	The figure indicates a transbay crossing to the Transit Center, which is inconsistent with the current studies being performed as part of the conceptual engineering for the Transit Center. The EIR/EIS should be coordinated with the Transbay Program's engineering studies.	L012-59
54	Appendix 2-D Figures 2-D-2 and 2-D-98	The Alignment Plan shows a transbay crossing to a Transit Center located on Howard Street, and also indicates a 3rd Street alignment for the Caltrain Downtown Extension. The Transit Center and Caltrain Downtown Extension alignments and locations should be shown in accordance with the Final EIS/EIR for the Transbay Transit Center Program. There is no basis or justification for arbitrarily altering the station location or rail alignment.	L012-60
55	Appendix 2-D Figure 2-D-2	The profile is stated as being based on the HST station at 4th and Townsend (assumed 4th and King per previous comments). This profile involves a significant length of tunneling at shallow depth from the 22nd Street Station into the City, which at the depth indicated would presumably be by cut-and-cover methods. The impacts of this tunneling on the Caltrain operation should be assessed.	L012-61
56	Appendix 2-D Figures 2-D-92, 2-D-93, and 2-D-97	All network alternative descriptions and travel times indicated in Section 7 are based upon HST coming to Transit Center. The figures both represent a Transbay destination at 4th and King streets, which is not a previously identified HST station location. It is suggested in the figures that only a future BART line is destined for the vicinity of the Transit Center. There is an obvious inconsistency in the information presented that should be resolved.	L012-62
57	Appendix 2-F Pages 2-F-1 to 2-F-3	The station designation should be 4th and King.	L012-63
58	Appendix 2-F Page 2-F-1	It is stated that San Francisco General Plan Policy 5.5 calls for "development of high-speed rail that links downtown San Francisco to major...national passenger rail corridors" and is "integrated with the transit network of the city and region." It should be acknowledged that neither of these parameters is accomplished in full by the 4th and King station location.	L012-64

59	Appendix 2-F Page 2-F-1	The description of the proposed station layout suggests an at-grade station, with a similar configuration to the existing Caltrain station. Elsewhere it is suggested that an underground station will be constructed for HST in this location. The text and drawings for this station location should be reconciled to promote a consistent solution.	L012-65
60	Appendix 2-F Page 2-F-2 to 2-F-3	Neither sketch shown appears consistent with the description (12 track/6 platform) provided on page 2-F-1. The drawings also appear to indicate that the proposed station is above grade, which again appears inconsistent with the EIR/EIS.	L012-66
61	Appendix 2-F Page 2-F-2	The drawing 2-F-2 appears to indicate a two-track alignment for the Caltrain Downtown Extension. This is not consistent with the environmentally cleared and approved configuration for the Caltrain Downtown Extension, which comprises a three-track alignment between the proposed underground 4th and Townsend station, and the six-track approach to the Transit Center platforms at the intersection of Second and Tehama streets approximately.	L012-67
62	Appendix 2-F Page 2-F-4	The discussion of the station layout appears to suggest that the Transit Center rail station is dedicated to HST. It should be acknowledged that operation of the station will be shared with Caltrain.	L012-68